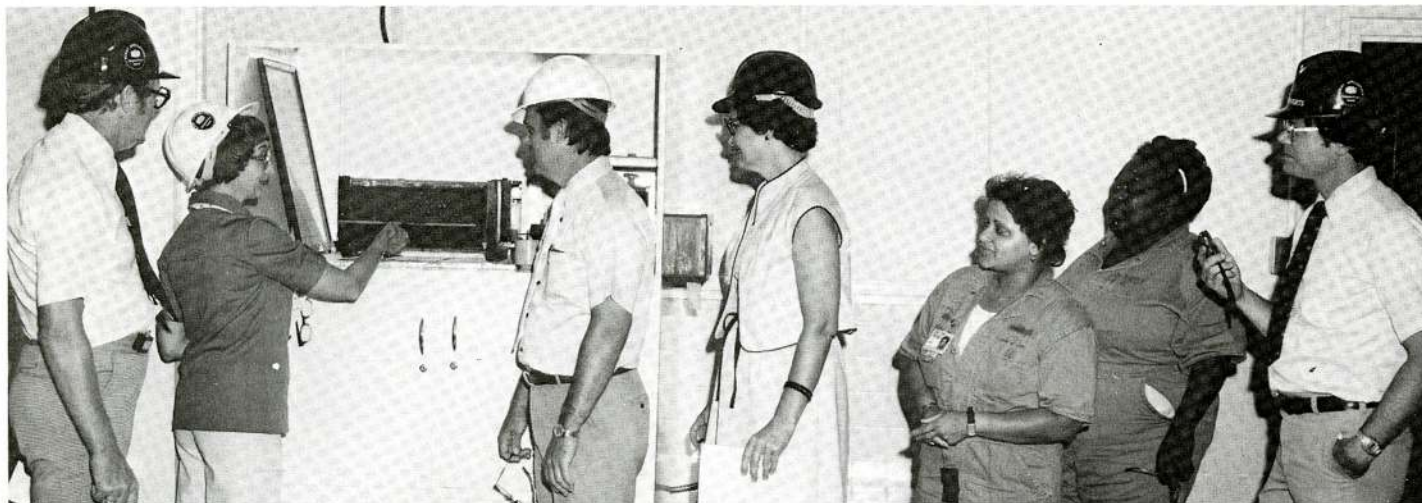
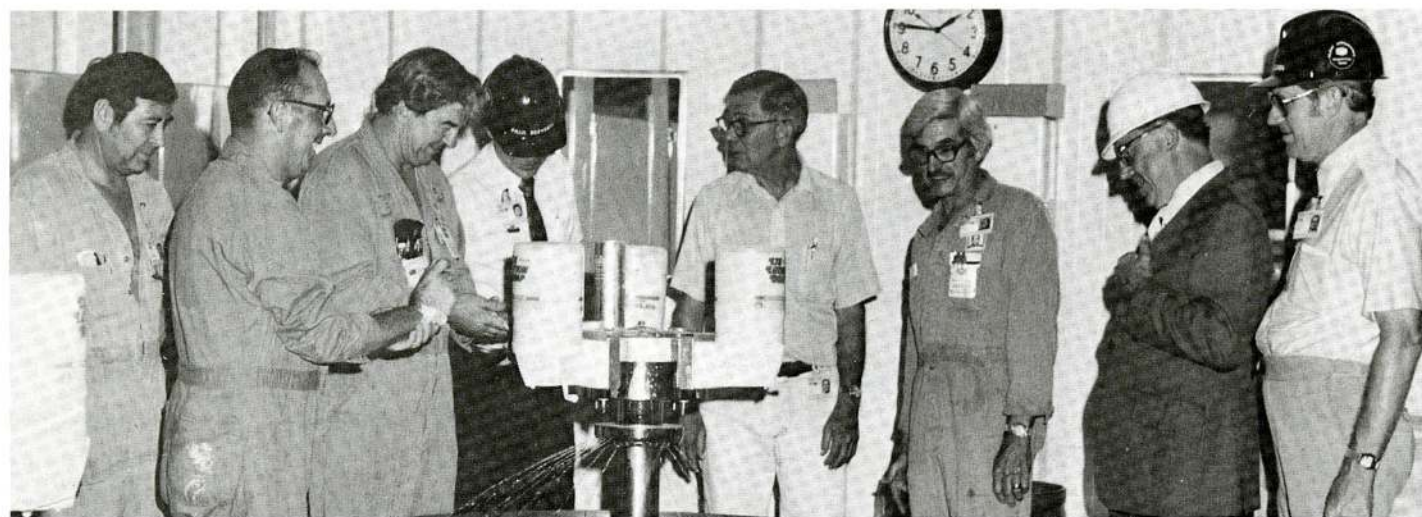


Year-round ORGDP activities improve environment



INSPECTION TEAM AT WORK—Ray B. Gann, Chris S. Travaglini, Carl H. Peterson, Fay B. Duncan, Vickie S. Harris, Mary B. Jackson and Paul F. Reeves check out a lunchroom for appearance, neatness and cleanliness.



CHANGE HOUSE INSPECTION—George E. Martinez, Earl B. Hoskins, Joseph B. Teague, Paul F. Reeves, Lucian E. Paulk, Earmel W. Bean, William J. Wilcox Jr. and Roy B. Gann inspect a change house in regular intervals to assure everything is kept in its place.

A new concept in plant clean-up activities is being utilized at ORGDP. It replaces the seasonal activities where special efforts were concentrated during the spring months. The 1980 task force appointed by Ken Sommerfeld, ORGDP manager, is headed by Ernie Evans, Separation Systems, and uses as its theme "Improving our Work Environment."

With managerial support, the efforts are aimed at every level of responsibility in the organization. Special emphasis is placed in areas where improvements are most needed, i.e., some change houses, lunchrooms and production work areas. The emphasis relates positively to the many advantages of an attractive, safe working environment. "It's like our attitude toward safety," Evans states, "Our own individual interests are served. The safer and more attractive the areas we work in, the more pleasant our jobs become."

The plant has been divided into seven geographic sectors plus two outside ORGDP... the Townsite and the Powerhouse areas. The seven in-plant areas and responsible persons are: Area 1—L. A. "Tony" Dean, manager of Maintenance; Area 2—Frank Strang, manager of Barrier Manufacturing; Area 3—Ed H. Krieg, head of ORGDP's Project Engineering; Area 4—Carl H. Peterson, Shift Operations; Area 5—A. J. "Gus" Legeay, manager of Operations; Area 6—James A. Barker, manager of Employee Relations; and Area 9—Lynn Calvert, Security and Plant Protection manager. Harold H. Osborne, general purchasing agent, is responsible for Area 8—Townsite; and Area 7, the Powerhouse section, is the responsibility of Robert R. Merriman, manager of Enrichment Technology.

The plant appearance inspection team members are: Paul Reeves, chairman; Ray Gann, Tony Cox, Conard Stair, Fay Duncan, and Bill Denton; alternates are Jo Stewart and Marvin "Doc" McCarty. The inspection team has expertise in safety, health, fire, production, maintenance and construction activities.

(Please see page 8)

UNION
CARBIDE

Nuclear Division News

• Vol. 11/No. 14 July 10, 1980

Union Carbide—around the corporate circuit

UNION CARBIDE CORPORATION and a group made up of Elkem-Spigerverket, Shieldings Investments Ltd. and a group of Norwegian investors have signed an agreement-in-principle for the sale of a portion of Union Carbide's metals business—including silicon, manganese, specialty chromium, special metals and calcium carbide operations in the United States, and manganese and silicon operations in Canada and Europe.

The transaction is expected to be completed before the end of 1980 following normal business review, governmental and other consents and final approval of the boards of directors of the various parties. The corporation expects to realize approximately \$285 million before taxes from the transaction. Included are plants in Alloy, W. Va.; Ashtabula and Marietta, Ohio; Niagara Falls, N.Y.; Portland, Ore.; Beauharnois and

Chicoutimi, Quebec; Rogaland and Trondelag, Norway; and Glossop, England.

PLANS BY UNION CARBIDE CORPORATION to construct a fifth major capacitor plant in the United States have been announced. The new facility to supply the electronics industry will be in Shelby, N.C.

The Shelby facility is scheduled for start-up in 1981. The 100,000-square-foot plant will employ about 700 people when fully operational. Union Carbide operates two capacitor plants in Greenville, S.C., and another in Columbus, Ga. The fourth one, in Greenwood, S.C., will start production in September of this year. There are two such facilities outside the United States.

Union Carbide is the world's leading supplier of solid tantalum capacitors and is one of the major

producers of ceramic capacitors. Capacitors in a variety of configurations are energy-storage devices used in electronic circuits.

In this issue...

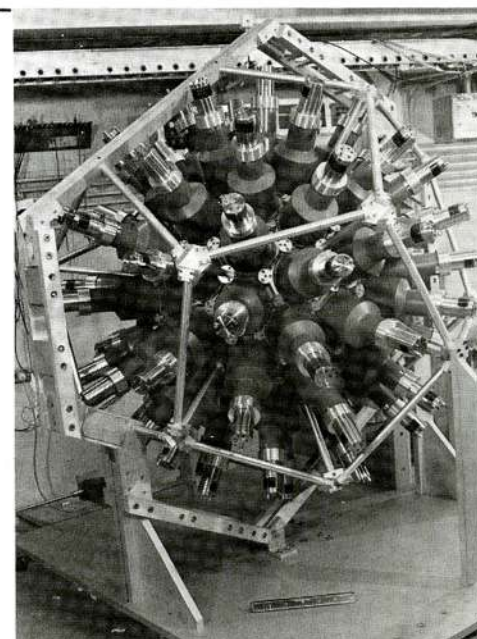
A porcupine with metal spines? No, it's called a "spin spectrometer" to be used in experiments conducted at the Holifield Heavy Ion Research Facility at ORNL. More pictures and story are found on pages 4 and 5.

Other features:

Medicine Chest page 2

Paducahans dance to a different drummer .. page 3

About people page 7





Medicine Chest

Treating and preventing arthritis

by T. A. Lincoln, M.D.

QUESTION: "Are there any measures that can be taken to prevent arthritis?"

ANSWER: It has been estimated that five to six million adults in the United States, mostly women, suffer from rheumatoid arthritis. In five to ten percent of patients, there are only one or two episodes of joint inflammation with almost no recurrences. In about 25 percent, the disease is intermittent with periods of intense activity alternating with prolonged remissions.

The majority of patients experience slow onset of the disease, with gradual progression. In only about 15 percent does it become a severe crippling disorder. In about 25 percent, the disease begins suddenly with severe systemic symptoms, such as fever, weakness, muscle stiffness and pain and swelling in many joints. Fortunately, rheumatoid arthritis rarely causes widespread damage to many organ systems and death.

Susceptibility is inherited

Susceptibility to rheumatoid arthritis is an inherited autosomal dominant trait. For some reason, regulation of the immune process in the joints is faulty. Many rheumatologists believe a mild infection starts the disease, although this has not been proved. The joints respond to the infection by forming antibodies and mobilizing millions of white blood cells, especially lymphocytes. This immune reaction, which soon involves many joints, apparently is not turned off, even after the infec-

tion has been conquered. Once started, it waxes and wanes, releasing enzymes that destroy the delicate synovial membrane that lines the joint.

From the above description, it is obvious that little can be done to prevent rheumatoid arthritis, except to carefully select one's parents. However, secondary prevention of disability is often possible. There is increasing evidence that maintaining joint movement, in spite of pain and inflammation, is essential to preventing loss of function.

Obesity is a factor

Degenerative arthritis or osteoarthritis is more easily prevented. A joint surface that has been permanently damaged and is subjected to years of normal wear and tear may form minute quantities of destructive enzymes that gradually damage the cartilage. When there has been a single acute injury like a fracture or a sprain, these enzymes may play a minor role in the repair process. When scar tissue remains, when the mechanics of joint motion are disturbed or when the joint has been damaged by a childhood or congenital disease, this enzymatic process may destroy the joint. Obesity alone causes increased wear and tear on the hips, knees and ankles, and this chronic injury frequently leads to osteoarthritis in middle age. Chronic strain, such as a baseball pitcher's elbow and shoulder, can set off the degenerative process.

Osteoarthritis that appears often in the fingertip joints probably is strongly influenced by hereditary factors. Gout and rheumatoid arthri-

tis often develop a superimposed degenerative arthritis late in the course of the disease.

It should be clear that avoiding joint damage that could lead to scar tissue or chronic mechanical stress is one way to prevent degenerative arthritis. Damage to the joint cartilage seems to set off the arthritic process.

Avoid chronic damage

Avoiding injuries to the weight-bearing joints is important. Many athletes with injured knees and ankles develop arthritis when they reach their 50's. Proper care of all fractures and sprains is crucial. Physical conditioning, joint support and training will help prevent injuries to young athletes, thereby preventing arthritis when they reach middle age.

Whenever the mechanics of joint function have been impaired by injury or developmental abnormalities, minimizing the defect with remedial exercises, braces or shoe lifts can prevent later arthritis. Unne-

cessary surgery or cortisone injections into joints should be avoided. Preventing obesity is extremely important to a person with already imperfect joints. Gross obesity, even in young people with perfect joints, can lead to arthritis 20 to 30 years later.

Exercise is beneficial

If joints are mechanically stable, they should be used to maintain strength and health. Jogging on healthy joints probably does more good than harm. Some middle-aged joggers complain of arthritic problems with their elbows and shoulders but never have any leg problems.

The textbook picture of arthritis is one of pain and suffering that restricts activities. Although primary prevention is usually not possible, secondary prevention of progression and disability may be possible. Skillful medical care, personal discipline and intelligent use and prevention of remaining joint function should allow a useful and active life.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

Nuclear Division deaths



Mr. George



Mr. Kelly



Mr. Knott



Mr. Lawson

tems at ORGDP, died June 21 in a Knoxville hospital. He joined Union Carbide last year after working with Rockwell International. He attended Baylor University and the University of California.

Survivors include his wife, Tonya, 727 Sunnyside Road, Knoxville; daughters, Dora Donnelly and Rene Umberger; son, Richard Umberger; and one grandchild.

The body was cremated.

Rufus F. Knott, Y-12's General Shops, died June 27 in a Knoxville hospital. A native of that city, he lived at 7620 Sentry Lane. Before joining Union Carbide in 1954, he was employed by Myers-Whaley and Webb Motor Company.

Survivors include his wife, Faye Galyon Knott; sons, Dana, Steven and Gordon; mother, Nora Knott; and two grandchildren.

Funeral services were held at Weavers Chapel, with burial in Highland Memorial Cemetery.

Earl J. Lawson, ORGDP Maintenance Division, died at his 7204 Larkspur Lane, Powell, home June 22. A veteran of the U. S. Navy, he joined Union Carbide in 1976 in the Fabrication Shop.

He is survived by his wife, Christine M. Lawson; a daughter, Janet; three sisters, Mrs. Jessie Smith, Mrs. C. L. Julian and Mrs. Iva French.

Services were held at Rose Mortuary with burial in Woodlawn Cemetery.

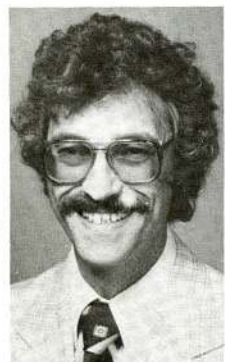
Walter S. George, Mechanical Utilities Maintenance at ORGDP, died June 21. A native of Andersonville, he lived there on Route 2. He joined Union Carbide in 1976.

He is survived by his wife, Elizabeth Crosby George; sons, Timothy, Samuel and James; parents, Mr. and Mrs. Mon F. George; grandmother, Lizzie Stooksbury; sister, Brenda Sewell; and brothers, Bobby and Steve.

Services were held at the Andersonville United Methodist Church, with interment in the Andersonville Cemetery.

Donald F. Kelly, a quality assurance engineer in Separation Sys-

Design engineers named in new posts



Morrison



Wallace

Two Nuclear Division men have been named design engineers: Julian M. Morrison in ORGDP's Environmental Control Engineering and Donald R. Wallace in ORNL's Electrical Engineering.

A native of Wesson, Miss., Morrison joined Union Carbide in 1967. He graduated from Copia-Lincoln Junior College and is continuing his education at the University of Tennessee.

Married to the former Gretchen Macres, he lives in Clinton. The Morrisons have a son, Daren.

Wallace, a native of Roane County, joined Union Carbide in 1967 after attending Tennessee Technological University.

He and his wife, Betty, have three daughters, Gail, Carol and Jeri. They live on Watts Bar Lake, Midtown, where they own and operate the Candy Creek Marina.

The Hulls of Paducah are certainty no squares!

By Darlene Mazzone

It's almost become a yearly tradition to find the enthusiastic smiles of George and June Hull in the family section of the *Paducah Sun* announcing their instruction of round dancing. For the past seven years, this dancing duo has been leading scores of Paducahans around in circles for weeks on end. Motivating this endless progression is their avid love of round dancing.

When George isn't managing the Paducah Plant's Cascade Operations Division, he'll probably be dancing, practicing dancing or traveling to a dance convention. His wife June will be right beside him making his steps hers — because that's what round dancing is all about.

Much like square dancing

"Side behind, side close, pivot to the wall, walk forward, two two-steps, scissors," June Hull cues the dance club couples in a smoothly moving circle during a regular dance session. Slippered feet can be heard scooting gently to the cued steps while stiffly starched crinolines bounce and swirl beneath brightly colored skirts. These are the sights and sounds of a scene which is

quickly growing in popularity around the country.

The dance is done in formation much like square dancing; however, it is performed by couples and more closely resembles ballroom dancing. The steps are waltzes, rhumbas, two-steps, foxtrots, tangos, cha-chas, polka and swing. But, unlike ballroom dance, the steps are choreographed to specific songs. The couples dance in a circle executing the same steps at the same time, following the cues given by an instructor.

Hulls taught themselves

Although George and June have been square-dancing since 1959, they became involved with round dancing around 1970 while attending a square-dance convention. From that point, the Hulls virtually taught themselves the choreographed steps and ultimately became instructors for the city's Parks and Recreation Department. They also cue rounds at two square-dance clubs and participate in their own round-dance club regularly.

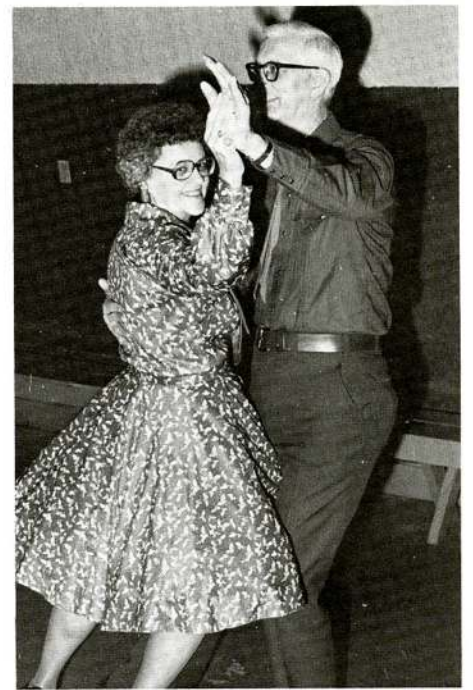
"It's something you can do as a couple, and there's virtually no age limit," George says of round dancing. "It also presents a challenge, and we

think it's more fluid and graceful than square dancing." Round dancing is done at many square dances, but there are also round-dance clubs that meet to enjoy only round dancing.

"Making the rounds"

Devotees claim the pastime doesn't have to be expensive unless couples travel to conventions and workshops as the Hulls have been doing for the past 10 years or so. "We've made friends from all over the country through dance conventions," George notes. They have attended national sessions in such cities as Denver, Miami, Des Moines and Salt Lake City along with more than 20,000 other round- and square-dance fans.

This year, the Hulls have earned a round-dancing distinction by choreographing their own dance, which they taught at the national convention in Memphis in June. The dance has already been used in several states and has been chosen "Round of the Month" in Chicago. An instructor from Texas visited the Hulls recently and took a copy of their "cue sheet" back to his home state, where, the instructor reports, the dance is now "making the rounds" there, too.



IN THE ROUND—Waltzes, rhumbas, tangos, two-steps, and foxtrots are some of the basic steps in the choreography of round dancing. June and George show their fancy style. The Hulls became involved in round dancing in 1970 while attending a square-dance convention.



CUEING IN—June cues the dances to specific songs by announcing the steps in succession as couples move in a circle. The Hulls cue rounds at two square dance clubs and participate in their own round dance club regularly.



SWING YOUR PARTNER—Most clubs enjoy square dancing as well as round dancing at regular session. George and June Hull break from the formal round dancing to enjoy the respite. She's in the print dress at left; he leads an unidentified partner at right.

Spectrometer newest addition at Holifield Facility

No, it's not a porcupine, although some people think it looks like one. It's called a "spin spectrometer," and it's the newest addition to the Holifield Heavy Ion Research Facility. The instrument will be used in experiments conducted at the facility's giant electrostatic accelerator housed in the 170-foot tower near the main entrance to the Laboratory.

In a typical experiment, atomic particles propelled to a significant fraction of the speed of light by invisible electromagnetic forces will be pushed up one side of the accelerator, whipped around by a giant bending magnet, and then guided back down the other side before bombarding a target element in the reaction chamber at the center of the spectrometer.

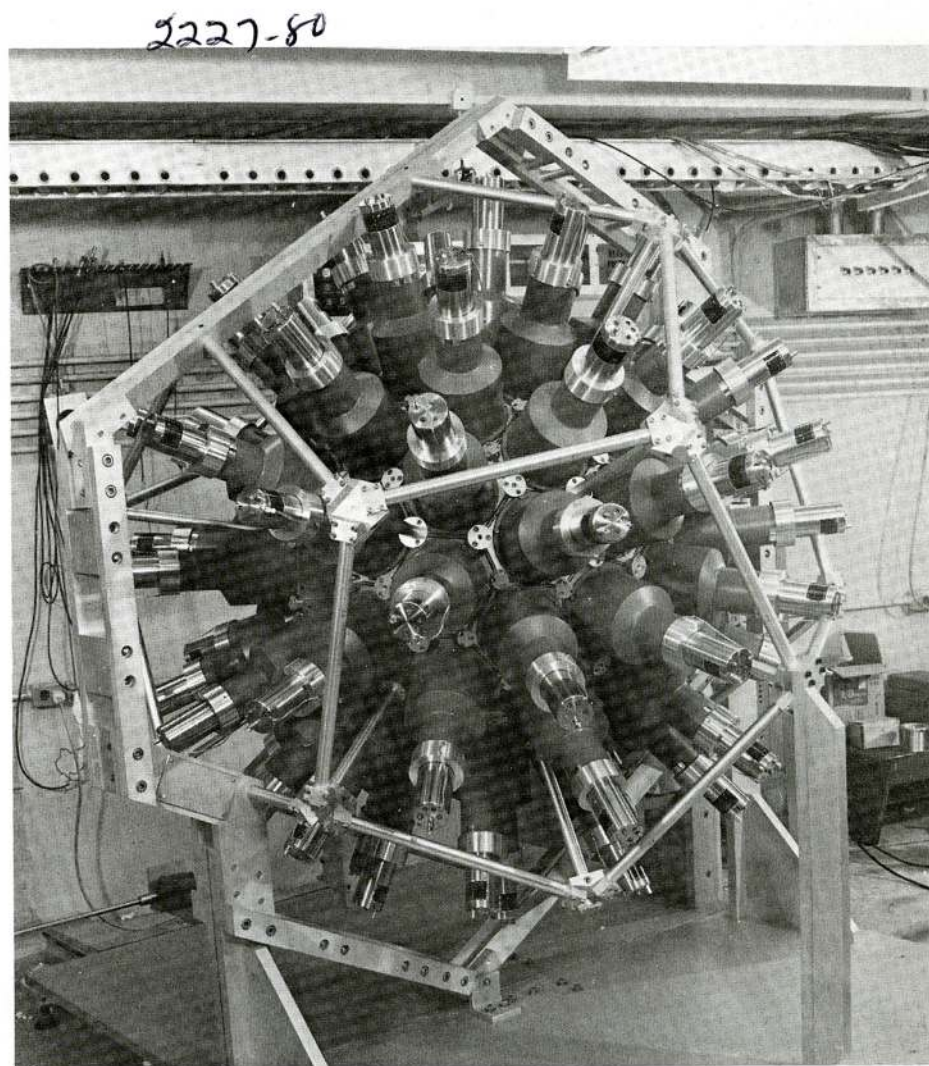
The violent collision, lasting much less than a trillionth of a second, produces an assortment of subatomic fragments and an outburst of gamma rays. By measuring the energy and position of the gamma rays with the spectrometer's 72 scintillation detectors or "spines," researchers are able to learn details about the collision events which, in turn, increase our understanding of nuclear matter and energy.

The operation of a scintillation detector depends on the fact that certain materials, called phosphors, emit visible light when they are struck by particles or rays. A familiar example of scintillation, or phosphorescence, is found in the television picture tube, in which high-speed electrons strike a phosphor on the face of the tube and cause the emission of visible radiations we see as pictures.

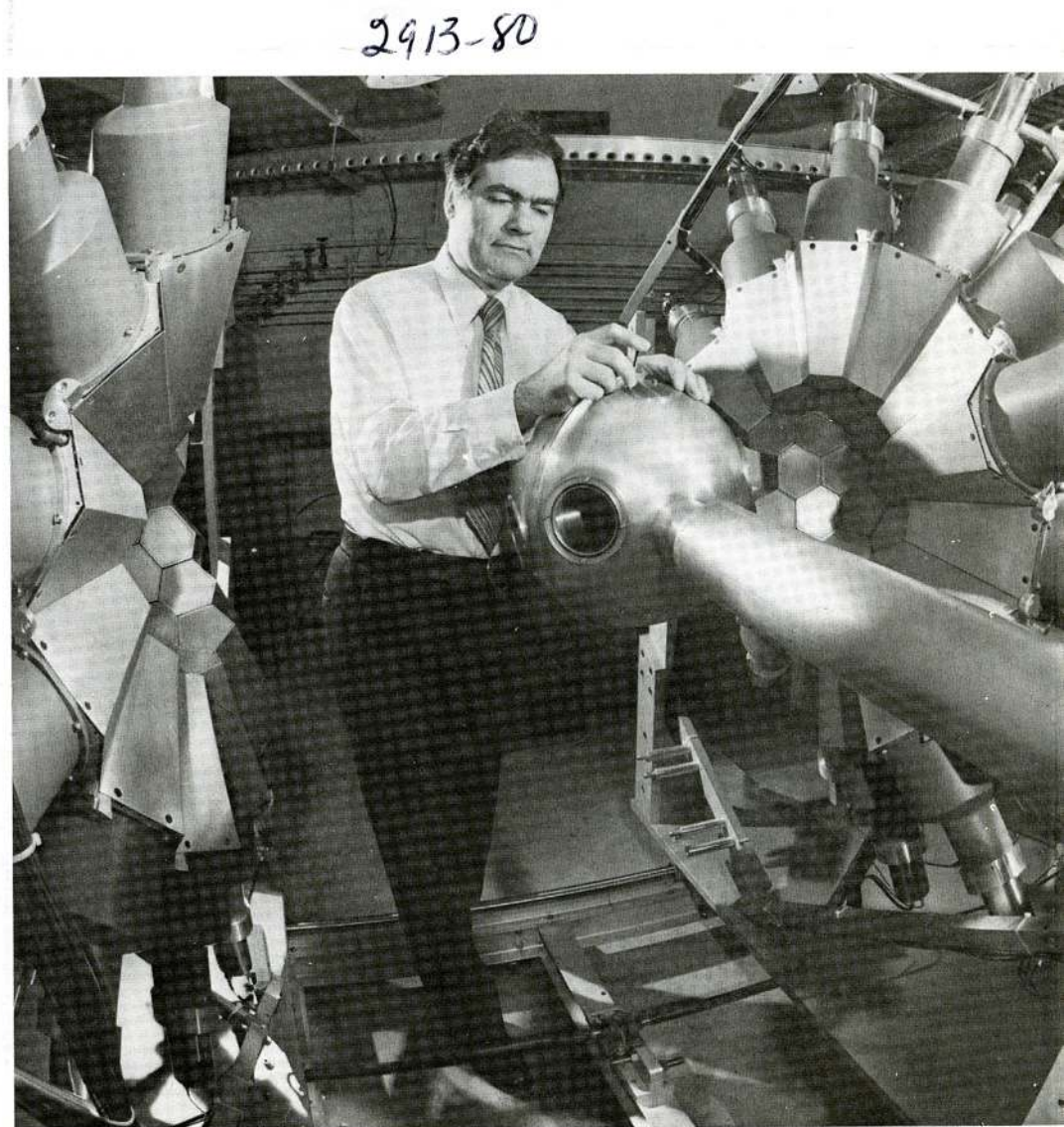
The spectrometer phosphors absorb nearly all the gamma ray energy and give off flashes of light. The light produces electrical pulses which are then analyzed by computer.

This is the first instrument of its type based on a complete spherical will record 95 percent of all the gamma rays emitted in a nuclear reaction.

The unique geometry of the 72-sided instrument (an ebdomecontadionhedron) provides ORNL researchers with the world's most sensitive gamma-ray detection device for nuclear physics. It was designed and constructed under contract with DOE at the Cyclotron Laboratory at Washington University in St. Louis under the guidance of Demetrios Sarantites.



Spin spectrometer

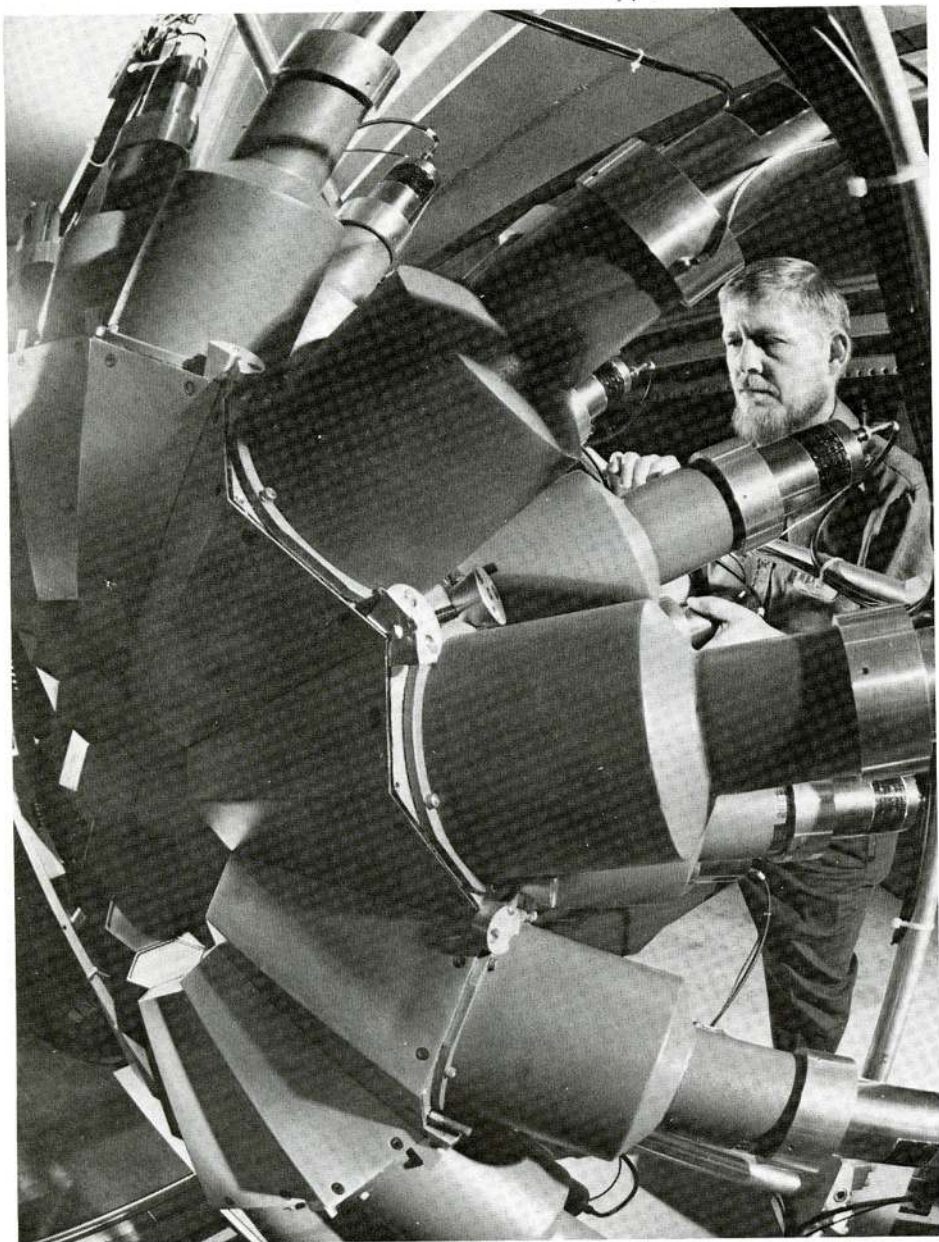


Physicist Mel Halbert loads target element in reaction chamber



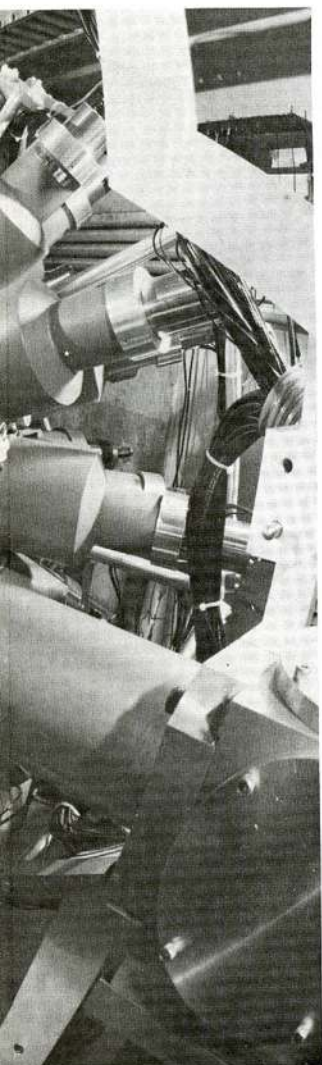
Demetrios Sarantites (left) and Mel Halbert examine spectrometer model.

2912-80



Research physicist David Hensley adjusts scintillation detector.

2662-79



chamber.



Holifield tower

Question Box

A four-day work week?

Four-day week

QUESTION: In order to conserve energy, why doesn't the Nuclear Division go on a four-day, 10-hours-a-day work week?

ANSWER: While energy conservation is important, there are many, many problems associated with a four-day work week; for example: 1) overtime rates must be paid for hours in excess of eight in a day; 2) studies have shown decreased productivity connected with long-term usage of extended working hours; 3) communication with others on regular schedules is less efficient; and 4) many employees have family obligations, long commuting times, or other personal circumstances that would make a 10-hour work day impractical.

Our best course of action in conserving energy in getting to and from work is to maximize use of car pools, van pools and buses. We do not plan on going to a four-day work week.

Performance ratings

QUESTION: Under the guidelines and procedures used to measure the performance of nonexempt salaried employees, can a secretary who clearly demonstrates a level of performance commensurate with the "1 - Outstanding" rating be given that rating, or is it reserved for highly technical or "perfect" employees?

ANSWER: Any nonexempt salaried employee who clearly demonstrates a level of performance commensurate with the "1 - Outstanding" rating can and should be given that rating. It is not a rating reserved for the highly technical or "perfect" employees.

It is a high rating. As a matter of fact, it is the highest rating obtainable under our performance appraisal system. To earn such a rating, an employee must have demonstrated performance which is exceptional to such a degree that it is clearly obvious and can be readily demonstrated or explained.

Retirement formula

QUESTION: *Business Week* reports that the pension plan multiplier should be at least 1.6 percent X

the monthly salary X the years of company service to be adequate to meet today's cost of living. What is being done to bring our Company's pension plan into line with the realities of inflation?

ANSWER: Our pension plan adjusts to inflation by using the average of the final three years' earnings in computing the pension. Since earnings usually reflect inflationary trends, the pension calculation likewise reflects inflation. It was to accomplish this end that the earnings base period was reduced from ten years to five, and then to the present three.

McGraw-Hill, the publisher of *Business Week*, has a formula that relates to average earnings over an employee's entire career. Perhaps that accounts for the writer's statement.

Saving vacation?

QUESTION: Why can't an employee carry a portion of his/her vacation into the next year before attaining 25 years' company service, rather than have the rush at the end of the year for those with vacation remaining? I always retain at least one week of my vacation until the end of the year, since it might be necessary to have some time off in case of emergencies.

ANSWER: Vacations are granted primarily to provide employees with time off for relaxation and/or rest. To the extent that vacation time is "carried over," this to some extent defeats this primary purpose. However, the "carry over" privilege at 25 years occurs when the employee has five weeks of vacation, which allows for a reasonable amount of time off even with the "carry over."

Most companies insist that vacations be taken each year or forfeited. In that respect, UCC's policy of permitting employees with 25 years of service an opportunity to "carry over" some vacation is more liberal than most.

Nevertheless, your suggestion would have appeal to many employees. It will be considered when Union Carbide next reviews its benefit plans package.

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Golf tournaments

Y-12—Whittle Springs

Poe Smith zeroed in on the Whittle Springs golf course recently to take the Y-12 tournament there...while his wife, Phyllis, was taking the *News-Sentinel's* hole-in-one contest waged at the same course.

Jim George followed in second place with 74.

Handicap lows went to Bob Whitaker and John Towle, with 75 and 74.

Division Two went to Don Branson, 75; and J. R. Mathis, 77. Handicap cards were low for Frank Clayton, 80; and Virgil Johnson and Bryce Burrus, both with 81.

Division Three belonged to W. L. Luffman and John Royster, 83 each; and O. C. Willard, 85. Handicap lows went to Mark Lambo, 85; and Pat Howard, 95.

Big news of the day concerned Art Jones, a newcomer to Y-12's Electrical Department. He took hole number one with an ace, playing in a foursome with Walter Wolfe, J. R. Mathis, and Bruce Drinnen. Using a wedge, knocked the ball right into the cup!

Winners may pick up their golf balls at the Recreation Office, Building 9711-5.

ORGDP—Cedar Hills

ORGDP winners at Cedar Hills saw Kyle Johnson and E. L. Arnold tie with 75; E. T. Strunk and C. J. Phillips with 76.

Jim Winters and David Byrd tied for handicap lows, each with 75, while Jim Barnes had 76.

The second flight went to Lloyd Kahler, 76; and R. M. Schilling, 80. Handicap lows went to R. W. Lynn, 77; and Lee Trowbridge, 82.

The third flight belonged to Larry Davis, 84; and K. P. Brown, 86. Bob Mikkola scored an 84 for handicap lows and Tom Dice took a 97.

Awards may be obtained from Peggy Collier, Building K-1001, Room C-136.

Skeet League

May Skeet winners were Joe Comolander, Y-12, shooting a score of 49.253. Alan McNutt, Y-12, was second with 48.720. Russell Allston, also of Y-12, took third place with 48.516.

Carbide Family Bowling League

The Smooth Strokes are leading the Carbide Family Mixed Bowling League, two points over the Rollers. The Oops are only one point behind them. Bowlers-of-the-week honors went to Marvin Wilkerson, 254-223-148=625 for the men; with Jackie Hinton rolling 216-227-199=642 for the women.



Art Jones

ORNL—Bays Mountain

ORNL's tournament at Bays Mountain went to J. Connatser with 68...followed by W. Miller, 70. Handicap went to D. Dice, 74; and W. E. Davis, 78.

In division Two, it was H. Thomas, 76; and R. Ross, 80. Handicap laurels went to O. Rogers, 83; R. Pawel and R. Tucker, 84 each.

In division Three it was B. Denning, 87; D. Morgan and F. Schmollinger, 88 each; with handicap honors going to A. Petree, 88, and J. Womac, 89.

Awards may be picked up from Debbie Walker, Room J-104, Building 4500N.

Save Energy... Share The Ride

ORGDP

RIDERS for van pool from Concord/West Knoxville area to Portal 5, 8 to 4:30. Lee Ford, plant phone 4-8861, home phone Knoxville 966-8331.

BUS RIDERS from Harriman, Midtown and Kingston to Portals 1, 2, 7, 8, 9 and 5. R. K. Hull, plant phone 6-0204, home phone Harriman 882-5618.

ORNL

RIDE or JOIN CARPOOL from Plum Creek Subdivision, Lovell Road, to East Portal, 8-4:30. L. J. Jeffers, plant phone 4-6961; home phone 691-0299.

VAN POOL RIDERS from Fountain City to all portals, 8-4:30. Gary Shepherd, plant phone 4-4238; home phone Knoxville 687-5721.

Y-12

FORMING CAR POOL from Cedar Bluff area, West Knoxville, to North and Biology Portals, 8:15-4:45. Mike Harrington, plant phone 4-0414; home phone 691-4742.

RIDE from Halls Cross Road area to Bear Creek Portal, H Shift. Joan C. Gideon, plant phone 4-3497, home phone Knoxville 922-9638.

RIDE or JOIN VAN POOL from North Knoxville to East Portal, 8-4:30. Kim Spurgeon, plant phone 4-1003, home phone 522-8157.

Tee-Off Time Application for

July 26, 1980



- ☐ Y-12—Southwest Point
- ☐ ORNL—Dead Horse Lake
- ☐ ORGDP—Bays Mountain

1. _____ LEADER
2. _____
3. _____
4. _____

PHONE _____

BLDG. _____

TEE-TIME _____

COMPLETE AND RETURN TO THE Y-12 RECREATION OFFICE
BUILDING 9711-5, MS-001

Entries must be received prior to drawing on July 23, 1980.

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. The leader ONLY for each foursome should call the Recreation Office, 4-1597, after 8 a.m., Thursday for your time.

Late June softball standings

Late June standings in the Carbide Softball League find only three teams with no losses so far...the Snakes, of course, the K-Traitors and the Sparks.

League standings follow:

Carbon League - West Division

| Name | Won | Lost |
|------------------------|-----|------|
| Sparks | 8 | 0 |
| Seven + Three | 8 | 1 |
| Moneychangers | 6 | 3 |
| Bombers | 5 | 3 |
| Gordon's Golden Flakes | 5 | 3 |
| Stonefingers | 5 | 4 |
| Odds and Ends | 5 | 4 |
| Whirlybirds | 4 | 4 |
| Moxies | 4 | 5 |
| Bits and Pieces | 4 | 5 |
| The Loose Balls | 3 | 5 |
| Super-Subs | 3 | 5 |
| "Tape" Worms | 3 | 6 |
| Rat House Gang | 2 | 6 |
| Rivets | 2 | 6 |
| Three Up Three Down | 1 | 8 |

Carbon League - East Division

| Name | Won | Lost |
|----------------------|-----|------|
| K-Traitors | 9 | 0 |
| QA&I | 8 | 1 |
| Fes-Kids | 7 | 2 |
| Bareskins | 7 | 2 |
| Pirates | 6 | 3 |
| Streakers | 6 | 3 |
| Sluggers | 5 | 4 |
| Ringers | 4 | 5 |
| Superstar's | 4 | 5 |
| Knockers | 4 | 5 |
| Crippled Turkeys | 3 | 6 |
| Killer Bees | 3 | 6 |
| Coneheads | 2 | 7 |
| Bear Creek All Stars | 2 | 7 |
| Wizards | 2 | 7 |
| Tom's Turkeys | 0 | 9 |

Carbon League - Central Division

| Name | Won | Lost |
|----------------------|-----|------|
| Luda Loptas | 9 | 1 |
| Master Batters | 9 | 1 |
| More Knockers | 7 | 2 |
| P.O.I.'s | 7 | 2 |
| Skinks | 7 | 3 |
| Wild Turkeys | 6 | 3 |
| Fed II | 6 | 4 |
| Uptowners | 5 | 4 |
| The Gauss House Gang | 5 | 4 |
| Pop-Ups | 4 | 5 |
| Fuzz Ballz | 3 | 6 |
| Pits | 2 | 6 |
| Our Gang | 2 | 7 |
| Fed I | 2 | 8 |
| Zilogs | 0 | 8 |
| The Argonauts | 0 | 10 |

Atomic League - North Division

| Name | Won | Lost |
|------------------|-----|------|
| Snakes | 8 | 0 |
| Shifters | 6 | 1 |
| Blue Demons | 7 | 2 |
| Dynamics | 6 | 3 |
| Gashouse Gang | 5 | 3 |
| B. T. Express | 6 | 4 |
| Electric Bananas | 5 | 4 |
| Bruins | 4 | 5 |
| ESD Pits | 3 | 7 |
| Rangers | 2 | 6 |
| A-Shifters | 1 | 6 |
| War Hogs | 1 | 7 |
| Critical Mess | 1 | 7 |

Atomic League - South Division

| Name | Won | Lost |
|-----------------------|-----|------|
| Mama's Best | 8 | 1 |
| Thunderdogs | 8 | 1 |
| Prime Time Players | 8 | 2 |
| Mutagents | 7 | 3 |
| Infra-Red Sox | 6 | 4 |
| Magnum Force | 5 | 4 |
| Short Circuits | 5 | 4 |
| Arties Army | 4 | 6 |
| Ole Ruff & Ready Gang | 3 | 6 |
| Bat-O-Matics | 1 | 8 |
| The Starters | 0 | 8 |
| Innovators | 0 | 8 |

News About People

Abraham W. Hsie, leader of the mammalian cell genetic toxicology group in ORNL's Biology Division, has received the Distinguished Alumni Service Award from Indiana University. The award, the highest honor given to an alumnus, was established by the university in 1953 to recognize outstanding achievements by its graduates.

Hsie, who has been with the Nuclear Division since 1972, received both the MA degree in bacteriology and the PhD degree in microbiology from Indiana University.

A native of Taiwan, Hsie came to the United States in 1963 following his graduation from National Taiwan University and one year's national service. After receiving his doctoral degree, he spent four years at the



Hsie

University of Colorado Medical Center, first as a National Institutes of Health postdoctoral fellow and later as assistant professor of biophysics and genetics.



Bradley

Ronnie A. Bradley, ORNL Metals and Ceramics Division, has been named a fellow of the American Ceramic Society. He was honored for his leadership in the development of processes and equipment for the remote fabrication of recycle nuclear fuel and for his contributions to the understanding of fuel performance.

Bradley has a BS degree from Georgia Institute of Technology and an MS from North Carolina State University. He joined Union Carbide in 1963 at the Y-12 Plant, transferring to ORNL in 1967. During 1975-76, he was on assignment to the Nuclear Research Center (KFA) in Julich, West Germany.



Fuller

Two engineers in ORNL's Engineering Technology Division received awards recently from the National Aeronautics and Space Administration's Lewis Research Center. Leonard C. Fuller, development staff member, and Therese K. Stovall, development associate, were recognized for developing PRESTO, a computer program designed to more easily and economically evaluate superheated turbine cycles of nuclear and fossil-fueled power plants.



Stovall

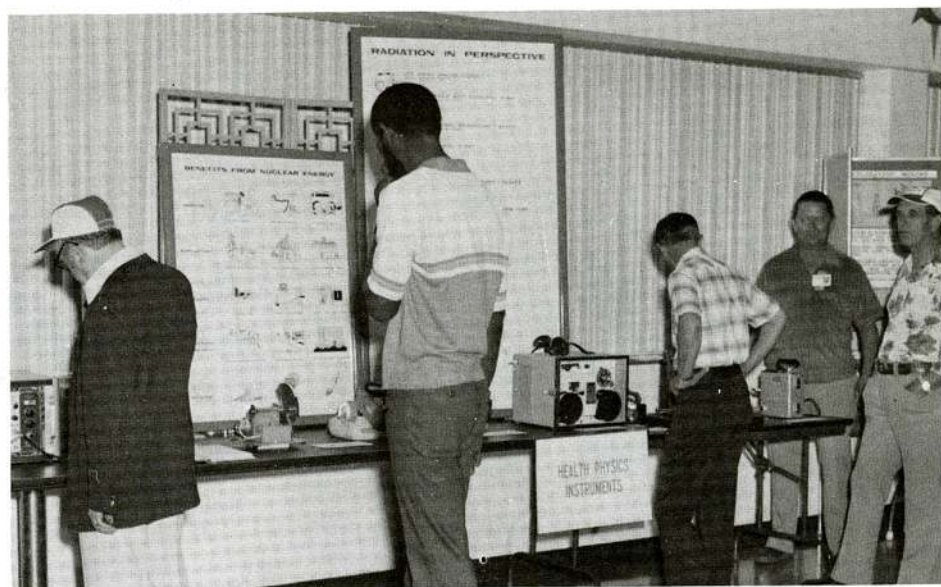


Koger

The American Society for Metals has named John W. Koger a fellow. He is superintendent of Metallurgy in the Development Division at Y-12. The honor, to be given in October at the annual awards banquet, recognizes distinguished contributions in the field of metals and materials and develops a broadly based forum for technical and professional leaders to serve as advisors to the ASM.

Koger, who joined Union Carbide at ORNL in 1967, transferred to Y-12 in 1973. He has a BS degree and an MS in metallurgy from Georgia Tech and a PhD in metallurgical and materials engineering from the University of Florida.

More photos from Paducah family day...



Named ORGDP Cashier, Travel head



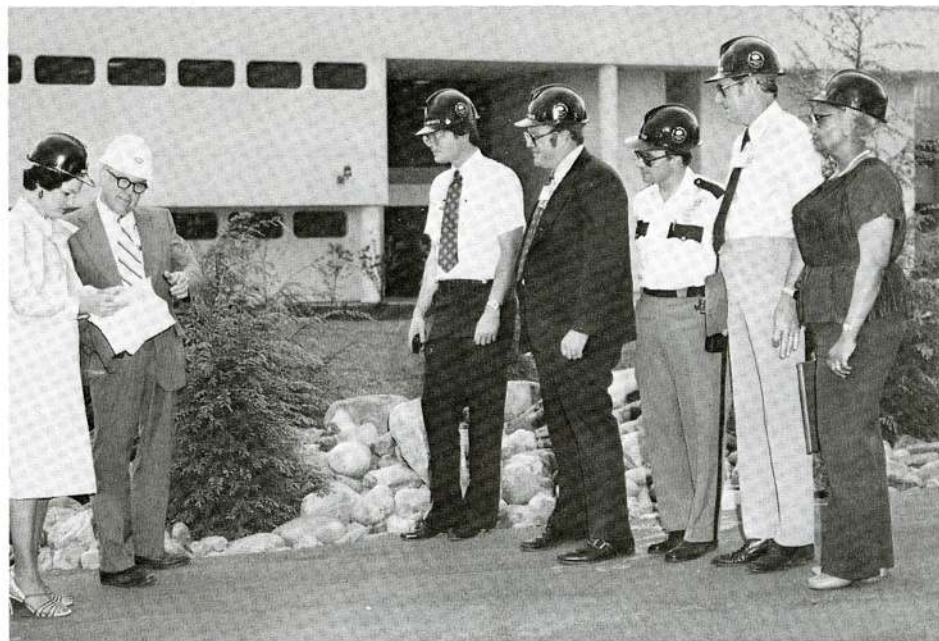
Willard

Michael C. Willard has been named supervisor of Cashier and Travel at ORGDP. He joined Union Carbide in 1972 after receiving a BS in industrial management from the University of Tennessee. He has worked in the Operations and Barrier Manufacturing Divisions and most recently as an employee relations representative in Employee Relations.

A native of Knoxville, Willard lives at 5712 Sourwood Lane, with his wife, Gayle and daughters, Ashlee and Lindsay.



INSPECTION REPORT—Paul Reeverts, right, shows an inspection report to a review committee consisting of, from left, J. A. "Tony" Cox, Chris Travaglini and Ernie Evans, chairman of the year-round committee for ORGDP.



OUTSIDE APPEARANCES COUNT TOO—Fay B. Duncan and William J. Wilcox Jr. discuss outside appearances with Paul Reeverts, Conrad L. Stair, J. A. "Tony" Cox, Ray B. Gann and Josephine H. Stewart.

ORGDP activities improve appearance of working areas

(Continued from page 1)

Quarterly inspections are made and ratings are issued to responsible managers. Areas are given improvement and appearance grades. Recognition is provided those areas with outstanding improvement. Special recognition awards will be made at the year's end.

Many of the hidden virtues of a good environment and attractive working areas are pointed out by the committee to the division managers throughout the plant. Included as side benefits are improved quality of production; a more pleasant attitude among workers when the area is clean and attractive; and a favorable impression made on the customer (in the Nuclear Division's case, the U.S.

Government); and many other intangible advantages.

Overriding all of this is the safety aspect involved. A neat, attractive work area is a safer work area.

Evans points out that total involvement is imperative if the program is to work. "We must generate enthusiasm at every level of responsibility if we are to succeed." Participation by all employees is essential to success.

The second quarterly inspection tour is currently under way. The first one, completed April 4, showed all areas either improved or remained stable but with much work still to be done.

The work of many enthusiastic employees ensures that the second quarter will show increased improvement.



MACHINING AREA CHECKED—Working areas are given routine examinations by the committee. Here J. A. "Tony" Cox, Charlie J. Parks and Fay B. Duncan chat with Norm F. Kuneman about his work environment.

Anniversaries

Y-12 PLANT

35 YEARS

Edwin R. Pulley, Nuclear Materials Accountability.

30 YEARS

Lawrence E. Christopher, Special Services; Warren F. Cartwright, General Shops; Boyd H. Hobby, A Wing Shops; Donald I. Davis, Guard Department; Victor M. Hovis, Development Division; Le Vaughn Davis, Materials and Services; and William H. Dodson, Development Division.

20 YEARS

Roy C. Scates.

ORGDP

35 YEARS

John S. Hutson, Maintenance; Freeman Fox, Technical Services; J. T. Kilby, Maintenance; Charles E. Sartin, Operations; William C. Chapman, Operations; Elmer H. Johnson, Barrier Manufacturing; Edna B. Ault, General Accounting; Glynn J. Riddle, Maintenance; and Bud B. Plemens, Finance, Materials and Services.

30 YEARS

Lola C. Byrd, Finance, Materials and Services.

25 YEARS

Alma J. May and Walter R. Templin.

20 YEARS

Tauno O. Maki, Robert C. Crowe and Warren J. Grunst.

ORNL

30 YEARS

Martin E. Ball, Plant and Equipment; Ernest L. Earley, Plant and Equipment; Gus Hatcher Jr., Plant and Equipment; Delmer E. Holt, Energy; Warren J. McMahan, Plant and Equipment; George P. Smith Jr., Chemistry; Herman J. Stripling Jr., Instrumentation and Controls; and Winfred O. Wilson, Plant and Equipment.

25 YEARS

Morgan H. Barger, Junior L. Griffith, Fred V. Hudson, Andrew D. Kelmers, Grover A. Moore, Cecil H. Parker, Bette F. Thomas and Charlotte W. Winchester.

PADUCAH

35 YEARS

Ralph F. Hutchins, Quality Evaluation Department.

Safety Scoreboard

Time worked without a lost-time accident through July 2:

| | | |
|------------------|----------|--------------------------|
| ORGDP | 149 Days | 4,699,185 Employee-Hours |
| ORNL | 53 Days | 1,211,848 Employee-Hours |
| Paducah | 19 Days | 190,000 Employee-Hours |
| Y-12 Plant | 211 Days | 7,232,000 Employee-Hours |

UNION
CARBIDE

UNION CARBIDE CORPORATION

NUCLEAR DIVISION
P.O. BOX Y, OAK RIDGE, TENNESSEE 37830

BULK RATE
U.S. Postage
PAID
Union Carbide
Corporation



ADDRESS CORRECTION REQUESTED